Water As Property

The Four Different Types of Goods

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In economics, goods can be categorized in many different ways. One of the most common distinctions is based on two characteristics: excludability and rivalrousness. That means we categorize goods depending on whether people can be prevented from consuming them (excludability) and whether individuals can consume them without affecting their availability to other individuals (rivalrousness).

Based on those two criteria, we can classify all physical products into four different types of goods: private goods, public goods, common resources, and club goods. We will look at each of them in more detail in the video and the paragraphs below.

Private Goods

Private Goods are products that are excludable and rival. They have to be purchased before they can be consumed. Thus, anyone who cannot afford private goods is excluded from their consumption. Likewise, the consumption of private goods by an individual prevents other individuals from consuming the same goods. Therefore, private goods are also considered rival goods. Examples of private goods include ice cream, cheese, houses, cars, etc.

Public Goods

Public goods describe products that are non-excludable and non-rival. That means no one can be prevented from consuming them, and individuals can use them without reducing their availability to other individuals. Examples of public goods include fresh air, knowledge, national defense, street lighting, etc.

Common Resources

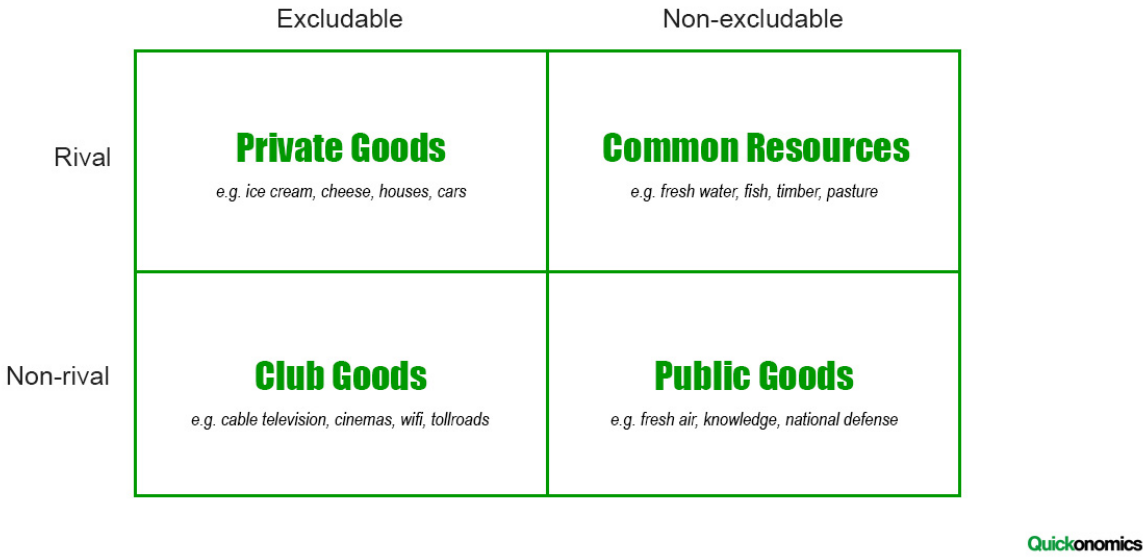
Common resources are defined as products or resources that are non-excludable but rival. That means virtually anyone can use them. However, if one individual consumes common resources, their availability to other individuals is reduced. The combination of those two characteristics often results in an overuse of common resources (see also the tragedy of the commons). Examples of common resources include freshwater, fish, timber, pasture, etc.

Club Goods

Club goods are products that are excludable but non-rival. Thus, individuals can be prevented from consuming them, but their consumption does not reduce their availability to other individuals (at least until a point of overuse or congestion is reached). Club goods are sometimes also referred to as artificially scarce resources. They are often provided by natural monopolies. Examples of club goods include cable television, cinemas, wireless internet, toll roads, etc.

Summary

There are four different types of goods in economics, which can be classified based on excludability and rivalrousness: private goods, public goods, common resources, and club goods. Private Goods are products that are excludable and rival. Public goods describe products that are non-excludable and non-rival. Common resources are defined as products or resources that are non-excludable but rival. And last but not least, club goods are products that are excludable but non-rival.



https://quickonomics.com/different-types-of-goods/#:~:text=Summary,%2Dexcludable%20and%20non%2Drival.

https://www.thoughtco.com/excludability-and-rivalry-in-consumption-1147876

https://courses.lumenlearning.com/boundless-economics/chapter/public-goods/

What type of good is water?

A. A Public Good, a Common Good, or a Private Good?

"Public goods," as distinguished from private goods, share two qualities: indivisibility and publicness.[19] Because public goods are indivisible, one cannot divide them up or buy as much as one wants, and because the goods are public, one cannot keep others from accessing and enjoying the goods as long as anyone can access and enjoy them. In other words, a public good is one that all within the relevant public must enjoy more or less equally, or no one can enjoy the good at all.

Public goods generally are free goods because consumers cannot be excluded from enjoying the good.[20] The only costs, if any, associated with a public good are the costs of capture, transportation, and delivery, where those are necessary, and not a cost for the good itself. How much can one charge others for viewing the blue sky over one's property? This creates an important problem: If you invest in developing or improving a public good, others who invest or pay nothing will enjoy the benefits of your investment.[21] You cannot exclude them from enjoying the good.

***546** Economists use a lighthouse as the classic example of a public good.[22] A lighthouse warns all ships that come within sight regardless of whether the ship pays or not. One cannot solve the problem by sending a boat out to collect from the ship shortly before the lighthouse comes in sight, for the appearance of the boat would be just as effective a warning as the lighthouse--and the ship could simply change course without paying. Such "free riders" seriously inhibit investment, unless the government (or some other institution) is able to assure that all (or nearly all) pay for the benefits they receive.[23] The market simply won't work; regulation will.

As economist Ronald Coase demonstrated in The Problem of Social Cost,[24] a private-property market system is a most efficient mechanism for allocating resources to particular uses when it works, but the system fails if there are significant barriers to the functioning of a market.[25] Water is not indivisible and ***547** public in the strictest sense, leading to occasional arguments that water is not a public good.[26] Yet even economists who make such arguments continue to use water metaphors when discussing what they concede are public goods: "common pool resource," "spill over effects," and so on.

Water, in some settings, can be a private good. We have all bought bottled water. This does not dispose of the question of whether bulk water--water in its natural condition--should be treated as a public good. Few things in this world are strictly indivisible and public. What a culture treats as a public good is determined not just by its physical characteristics, but also by its social and economic characteristics. When the costs to exclude others would be so high that it is impractical to exclude others from access to the good, or when there are ***548** other (perhaps cultural) reasons why a society will not exclude some of its members from access to the good, the good is treated as if it were a public good.

The social or economic characteristic that usually leads to treating something as a "public good" is that transaction costs are so high that no market can function with even minimal effectiveness.[27] Ronald Coase has argued that analyses that ignore transaction costs are typical of the "blackboard economics" that he has concluded is the bane of most academic economists.[28] The most important and consistent simplifying assumption that economists make is to assume a "frictionless market"--a market without transaction costs. Lawyers, on the other hand, focus precisely on the costs and frictions of the marketplace for their role is to minimize, accommodate, or overcome such problems.[29] Lawyers are not concerned about how ideal markets would function--except as a baseline for measuring the failure of real markets.

Another reason for treating something as a public good is because social values require that all receive a "fair" share of the resource, or at least that one's access to the good not be subject to the strictures of the marketplace.[30] When a good is considered essential for the minimum well being of members of society, governments undertake to provide the good to all without direct charge. This is especially true when transaction costs make markets impossible. Such goods could be termed socially created public goods. Examples of socially created public goods include fire protection or public education.[31]

***549** Water is just such a commodity. This is most obvious for the protection of instream flows.[32] Less obvious, but no less true, is the public nature of water when withdrawn for private use. While it is easy enough for someone to own and manage water unilaterally in small amounts (for example, bottled water), a river is an ambient resource that can never be fully controlled or owned. Doing something to water on a large scale necessarily affects many others, making it difficult to procure the contractual assent of all significantly affected persons. As we shall see,[33] transaction costs on all but the smallest waterbodies quickly become prohibitive. This reality underlies the treating of water as a free good--a good available to all at no cost for the water itself, but only for the cost of capturing, transporting, and using the water. Those who insist that private markets should be the prime means for protecting instream values miss the point entirely.[34]

Some economists complicate this picture by talking about "common goods" as distinct from "public goods."[35] These economists tell us that common ***550** goods differ from public goods in that, while the goods are shared among a group of common owners, the goods can be exhausted and not everyone in the universe has equal access to the goods. In other words, public goods are " non-rivalrous," but common goods are "rivalrous." Because of these features, the consumption of common goods by one person reduces one or more other person's ability to consume the same good. In other words, "common goods" exhibit some measure of subtractability and excludability--qualities that, they tell us, do not apply to true "public goods."[36] Because of these qualities, the rate of consumption of a "common good" varies according to the number of users and the type of use. Nevertheless, it is possible for many consumers to benefit jointly from the resource as long as there are means for excluding others from using the resource.

If we take this third category of goods seriously, there are very few true public goods. Even a lighthouse, often presented as the paradigm of a true public good, is not used by everyone in the world, but only by those on ships coming within range of its light. Perhaps only the blue sky qualifies as a true public good. In fact, common goods are just public goods for which there is a limited group of "co-owners" and the level of demand has approached or exceeded the available

supply. From a legal point of view, the most central managerial problem regarding public goods is precisely the most central managerial problem for common goods: How can one recover the cost of maintaining or enhancing the good when a significantly large group of people have access to, and the legal right to the use of, a good without direct charge for the use they make. This leads directly into the "tragedy of the commons."[37]

Advocates of markets for allocating and managing water are not entirely off base. They are demanding an end to the treatment of water as a free good. Water should not be a free good. Economic incentives including fees, taxes, and "water banks," should be introduced for those who use water so they will more realistically evaluate the social consequences of their conduct.[38] But resort to economic incentives should not obscure the fact that water remains the prime example of a public good for which prices cannot be set in a marketplace. The reality of transaction costs should give even the most free-market oriented economist pause to consider whether true markets could function effectively for water resources.[39] Ultimately, true markets must remain marginal to the management of large quantities of water for numerous diverse users.

Joseph Dellapenna, Adapting Riparian Rights to the Twenty-First Century, 106 W.Va. L. Rev. 539 (2004).

The State Owns the Water?

Colorado Constitution, Article 16 Mining and Irrigation

Section 5. Water of streams public property. The water of every natural stream, not heretofore appropriated, within the state of Colorado, is hereby declared to be the property of the public, and the same is dedicated to the use of the people of the state, subject to appropriation as hereinafter provided.

The Montana Constitution declares that "[a]ll surface, underground, flood, and atmospheric waters within the boundaries of the state are property of the state . . . and are subject to appropriation for beneficial uses[.]" MONT. CONST. art. IX, § 3; *see also* MONT. STAT. ANN. § 85-2-102(5) (West 2019) (defining "beneficial use").

The Constitution of the State of New Mexico provides that "the unappropriated water of every natural stream, perennial or torrential, within the state of New Mexico, is hereby declared to belong to the public and to be subject to appropriation for beneficial use, in accordance with the laws of the state", and that temporal priority shall give the better right. N.M. CONST. art. 16, § 2.

For appellee's argument is still based on the legal fiction of state ownership. The fiction is illustrated by municipal water supply arrangements pursuant to which ground water is withdrawn from rural areas and transferred to urban areas. Such arrangements are permitted in Nebraska.

Sporhase v. Nebraska ex rel Douglas, 458 U.S. 941 (1982).

Water (or the right to use water) as a constitutionally protected property right

B. Key Lessons from the Cases

While the geographic distribution and growing number of groundwater/takings cases are both intriguing, the more important lessons from the cases arise from their reasoning and outcomes. Below, I describe several of the central themes.

1. Groundwater Use Rights as Property

One of the first lessons from the cases involves the status of groundwater use rights as constitutional property. In the American legal tradition, and particularly in the American west, water rights are commonly thought of as a subspecies of property rights, and lawyers commonly believe--or sometimes simply assume--that those rights are subject to constitutional protection.[172] Nevertheless, in recent years, a few commentators have questioned that assumption.[173] They raise a mix of assertions, arguing both that water rights are not uniformly established as constitutional property and that constitutionalized water rights are ***281** unjustified in theory and harmful in practice.[174] Similar claims sometimes emerge in litigators' briefs. In the Day litigation, for example, some amici argued that constitutionalizing a property right to in situ groundwater would sound the death knell for sensible regulation.[175] That view also finds some support from comparisons with the laws of other countries. Many have effectively rejected regulatory takings protection for groundwater use rights, or for property rights more generally, without losing their ability to support advanced resource-based and industrial economies.[176]

Nevertheless, the American groundwater/takings cases provide little support for arguments against treating water rights as constitutional property. Many cases clearly state that groundwater use rights qualify as constitutional property and are protected by the takings doctrine.[177] Day exemplifies these cases, as does McNamara v. City of Rittman, a recent Ohio Supreme Court case.[178] There, the court unequivocally concluded, "Ohio recognizes that landowners have a property interest in the groundwater underlying their land and that governmental interference with ***282** that right can constitute an unconstitutional taking."[179] A few cases do not address the issue, some address it ambiguously,[180] and some have stressed that the constitutional protection for water rights is weak.[181] But I found only one decision that clearly rejected the idea of a property right in groundwater. In Village of Tequesta v. Jupiter Inlet Corp., a 1979 decision, the Florida Supreme Court concluded a discussion of groundwater rights with the emphatic statement that "[t]his 'right to use' is not 'private property' as contemplated by article X, section 6, [of the] Florida Constitution requiring full compensation before taking for a public purpose."[182] That statement is entirely consistent with conceptions of water rights as sub-constitutional property. But within American groundwater jurisprudence, that statement also is unique.

Dave Owen, Taking Groundwater, 91 Wash. U. L. Rev. 253 (2013).

Water as a human right

Resolution adopted by the General Assembly on 28 July 2010 [without reference to a Main Committee (A/64/L.63/Rev.1 and Add.1)] 64/292. The human right to water and sanitation

Recognizes the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights;

Water should be "adequate" for human dignity, and should not be simply treated as an economic good.[72] In order to be make water adequate for human dignity in terms of quality, quantity, and access, special active efforts are needed. The human right to water approach should focus on the use of water by states *vis-à-vis* other states, as in the public health and cultural definitions, where the human right to water focuses on the use of water by natural persons, either individually or collectively. The effective implementation of the human right to water will provide natural persons with their right to water in terms of quality, quantity, and access. The Committee on Economic, Social, and Cultural Rights emphasizes this intent by defining the right to water as a right to "sufficient, safe, acceptable, physically accessible and affordable water."[73] Under the right to water, both quantity and quality of affordable water are directly connected to safe drinking water and sanitation, and are ultimately connected to the health and life of people. Low cost or free access to water, for certain vulnerable sections of the population, is also critical to the health and life of those vulnerable populations. However, this definition by the Committee focuses only on the water, not humans. By defining water as a *human* right, individuals or states will be able to call upon an international human rights regime that has been developed since World War II to seek judicial enforcement at both local and international levels.

Jootaek Lee and Maraya Best, Attempting to Define the Human Right to Water with an Annotated Bibliography and Recommendations for Practitioners, Georgetown Envtl. L. Rev. 75 (2017).